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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,792	02/09/2004	John S. Fox	LIG0001P	9683

7590 02/05/2009
John S. Fox
684 Poinsettia Park South
Encintas, CA 92024

EXAMINER

GEISEL, KARA E

ART UNIT	PAPER NUMBER
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2877

MAIL DATE	DELIVERY MODE
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02/05/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/775,792	Applicant(s) FOX, JOHN S.	
	Examiner KARA E. GEISEL	Art Unit 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6, 8, 9, 16 and 18-23 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 7, 10-15 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Priority***

In the first paragraph, it appears that applicant may be trying to claim priority to two different applications. If this is the case, the application numbers, the relationship of the copending applications, and a petition to accept an unintentionally delayed benefit claim must be submitted. See below.

A reference to the prior application must be inserted as the first sentence(s) of the specification of this application or in an application data sheet (37 CFR 1.76), if applicant intends to rely on the filing date of the prior application under 35 U.S.C. 119(e), 120, 121, or 365(c). See 37 CFR 1.78(a). For benefit claims under 35 U.S.C. 120, 121, or 365(c), the reference **must include the relationship (i.e., continuation, divisional, or continuation-in-part)** of all nonprovisional applications. If the application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference to the prior application must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). **A benefit claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed benefit claim under 35 U.S.C. 119(e), 120, 121 and 365(c).** The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5)

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to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If the reference to the prior application was previously submitted within the time period set forth in 37 CFR 1.78(a), but not in the first sentence(s) of the specification or an application data sheet (ADS) as required by 37 CFR 1.78(a) (e.g., if the reference was submitted in an oath or declaration or the application transmittal letter), and the information concerning the benefit claim was recognized by the Office as shown by its inclusion on the first filing receipt, the petition under 37 CFR 1.78(a) and the surcharge under 37 CFR 1.17(t) are not required. Applicant is still required to submit the reference in compliance with 37 CFR 1.78(a) by filing an amendment to the first sentence(s) of the specification or an ADS. See MPEP § 201.11.

Specification

The disclosure is objected to because of the following informalities: the application numbers in the first paragraph are missing.

The abstract of the disclosure is objected to because it exceeds 150 words in length. Correction is required. See MPEP § 608.01(b).

Appropriate correction is required.

Claim Objections

Claims 7, 10-15, and 17 are objected to because of the following informalities: minor typographical and grammatical errors.

In regards to claim 7, lines 1-2 “between the at least one dichroic mirror and the specimen upon the stage” is repetitive as it is disclosed in lines 5-6. It appears this claim would be clearer if it was

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removed. Also, in line 6, it appears --for-- should be added in between "stage, selectively" in order to clarify the claim.

In regards to claim 10, the preamble is generally narrative. It appears the claim would be clearer if the preamble were rewritten to state, "An improvement of an apparatus holding and illuminating a macroscopically-sized three-dimensional specimen so that about one-half of the specimen's surface may be viewed at one time along a single viewing axis, the improvement comprising".

In regards to claim 13, line 5, it appears --for-- should be added in between "stage, selectively" in order to clarify the claim.

In regards to claim 17, lines 2-3, it appears this step would be clearer if rewritten to state -- wherein positioning comprises positioning two dichroic mirrors to be on opposite sides of the specimen upon the stage--.

Appropriate correction is required.

Claims, which depend on objected to claims, inherit the problems of these claims, and are therefore, also objected to.

Allowable Subject Matter

Claims 1-6, 8-9, 16, and 18-23 are allowed over the prior art of record.

Claims 7, 10-15, and 17 would be allowable if rewritten or amended to overcome the objection(s), set forth in this Office action.

The following is a statement of reasons for the indication of allowable subject matter:

As to claim 1, the prior art of record, taken alone or in combination, fails to disclose or render obvious an apparatus for illuminating a macroscopically-sized specimen for, upon at least one time, observation along a single viewing axis, the apparatus comprising at least one **dichroic mirror** positioned so that at least a portion of the specimen not directly observable along the viewing axis will be reflected in the mirror so as to become observable along the viewing axis; and one or more second illumination

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sources radiatively illuminating the specimen on the stage **through the at least one dichroic mirror** so that at least some radiation reflected from that region of the specimen not directly observable along the viewing axis will become reflected by the dichroic mirror and will become observable along the viewing axis, in combination with the rest of the limitations of claim 1.

As to claim 10, the prior art of record, taken alone or in combination, fails to disclose or render obvious an apparatus holding and illuminating a macroscopically-sized three-dimensional specimen so that about one-half the specimen's surface may be viewed at one time along a single viewing axis, an improvement directed to enabling panoramic viewing of more than one-half of the specimen at one time, the improvement to the apparatus comprising: a **dichroic mirror** positioned so that at least a portion of the specimen that is not directly observable along the viewing axis will be reflected in the mirror so as to become observable along the viewing axis; and an illumination source illuminating the specimen on the stage **through the at least one dichroic mirror**, in combination with the rest of the limitations of claim 10.

As to claim 16, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method of illuminating a macroscopically-sized specimen for, upon at least one time, observation along a single viewing axis, the method comprising: positioning a **dichroic mirror** so that at least a portion of the specimen not directly observable along the viewing axis will be reflected in the mirror so as to become observable along the viewing axis; and second radiatively illuminating the specimen on the stage **through the dichroic mirror** so that at least some radiation reflected from that region of the specimen not directly observable along the viewing axis will become reflected by the dichroic mirror and will become observable along the viewing axis, in combination with the rest of the limitations of claim 16.

Additional Prior Art

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art made of record is Bollen (USPN 4,309,094), Birkle (USPN 5,126,872), Tomiya (USPN 5,452,080), Hirahara et al. (USPN 7,289,646), and Shirley (US Pubs 2003/0072011).

Bollen, Hirahara, and Shirley all disclose an apparatus for illuminating a macroscopically-sized specimen for, observation along a single viewing axis, the apparatus comprising at least one mirror positioned so that at least a portion of the specimen not directly observable along the viewing axis will be reflected in the mirror so as to become observable along the viewing axis.

Birkle and Tomiya disclose an apparatus for illuminating a macroscopically-sized specimen for observation along a single viewing axis, the apparatus comprising: a stage for supporting a specimen to be observed; one or more first illumination sources radiatively illuminating the specimen upon the stage so that at least some radiation returned from the specimen will be returned along the viewing axis; at least one **beam splitting** mirror positioned so that at least a portion of the specimen not directly observable along the viewing axis will be reflected in the mirror so as to become observable along the viewing axis; and one or more second illumination sources radiatively illuminating the specimen on the stage through the at least one beam splitting mirror so that at least some radiation reflected from that region of the specimen not directly observable along the viewing axis will become reflected by the dichroic mirror and will become observable along the viewing axis.

Conclusion

This application is in condition for allowance except for the following formal matters discussed above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 25 USPQ 74, 453 O.G. 213, (Comm'r Pat. 1935).

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kara E Geisel whose telephone number is **571 272 2416**. The examiner can normally be reached on Monday through Friday, 8am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on **571 272 2800 ext. 77**. The fax phone number for the organization where this application or proceeding is assigned is **571 273 8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/Kara E Geisel/
Patent Examiner,
Art Unit 2877**

February 5, 2009